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SPECIAL AIRWORTHINESS INFORMATION BULLETIN

Aircraft Certification Service
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www.faa.gov/certification/aircraft

This is information only. Recommendations aren't mandatory.

Introduction

This Special Airworthiness Information Bulletin informs you, owners and operators of **Diamond Aircraft Industries Inc. model DA20-C1 airplanes** equipped with the **Teledyne Continental Motors (TCM) model IO-240-B engine**, of service documents issued to address engine idle stability problems and to announce improvements or product upgrades that are available for this engine.

Background

There have been reports of IO-240-B engines shutting down or "running rough" when the power is reduced to idle. You should note that fuel flows in low horsepower engines are proportionally less than in higher horsepower engines. Therefore, they have less stability margin at low power levels or low fuel flow rates and idle fuel flow stability on these engines is more sensitive to variations in maintenance practices. For example, differences in or improperly calibrated gauges can impact fuel flow stability. In most situations, enhanced focus on maintenance practices has resolved the problems but TCM has also introduced design improvements to address this issue, i.e. to make the engine less sensitive to low fuel flow rates and has issued service documents to address this condition.

TCM has issued Service Bulletin, SB04-4A, and Service Information Letters, SIL04-9 and SIL-05-5, to address idle stability on the IO-240 engine models. In addition, Service Information Directive, SID97-3C contains

procedures and specifications for adjustment of all TCM continuous flow fuel injection systems. Service Information Letter, SIL05-6, dated February 25, 2005 lists these service instructions and other product improvements.

Recommendation

We recommend compliance with all TCM service/maintenance documents including those presented in SIL 05-6 when maintaining the IO-240-B engine. Specifically, Service Bulletin SB04-4A, SIL04-9 and SIL05-5 address the idle stability issue discussed above. In addition, SID97-3C contains procedures and specifications for adjustment of all TCM continuous flow fuel injection systems. We also recommend that you use the latest revision to these documents.

The complete text of TCM SB04-4A, SIL 04-9, SIL05-5, SIL05-6 and SID97-3C and the other documents listed in SIL05-6 are available on the TCM website at www.TCMLINK.com. For a free printed copy of these documents, call the TCM Customer Service Department at (888) 826-2325 or write them at Teledyne Continental Motors, P.O. Box 90, Mobile, AL 36601.

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